
REMARKS

This amendment, Paper No. 3, is submitted in response to the Official Action, Paper No. 2, dated April 11, 2003. Claims 1-20 are pending in the application. Claims 1-9, 11-16, and 19-20 are rejected. Claims 10, 17, 18 and 20 are objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant traverses those rejections with which he has not complied, and based on the claim amendments presented above, and the arguments presented below, respectfully requests reconsideration and reexamination of the application, and withdrawal of the rejections.

The Claims

35 USC § 102(b)

Burelle

Claims 1 and 7 stand rejected under 35 USC § 102(b) as being anticipated by US Patent No. 3,583,710 to Burelle.

With respect to claims 1 and 7, Examiner states that the patent to Burelle discloses the recited end cap for a conduit comprising an end piece 3 or 3', a circumferential skirt 10 attached around the end piece, and where the circumferential skirt comprises a plurality of connection tabs 11 spaced circumferentially around the skirt, wherein the tabs have angled faces and there is at least one hole cut in the top of the end piece for receiving a pipe.

Applicant traverses this rejection and respectfully disagrees with Examiner's analysis of Burelle. First of all, Burelle is specifically a coupler or connecting means for two conduits of different diameter. It is not a cap. Secondly, elements 3 or 3' of Burelle are not "end pieces", they are defined as *rings* that form one half of the main coupler device of Burelle. The ring 3 or 3' fits over ring-shaped seal 4 (see Figure 1 of Burelle) to form part of the coupler. There is no "end piece" in Burelle that covers the end of a conduit. In fact Burelle is

not even a single piece, it requires at least two ring-like pieces that fit together to make the coupler and to attach to the two conduits being connected.

In addition, Examiner cites element 10 of Burelle as a “circumferential skirt”. Element 10 of Burelle is defined as a *groove* 10 behind *projections* 11, see Column 2, line 28 of Burelle. Therefore element 10 is not a circumferential skirt attached around an end piece but is rather a void or groove formed in ring 3 to engage the flange 9 on the conduit.

Also, what Examiner dubs “connection tabs” 11 of Burelle are defined as *projections* that have a groove behind them. These projections do have angled portions, but the angled portions in connection with the groove engage over flange 9 formed on one of the conduits to be joined. Applicant requires no groove or recess in its device, to engage over a flange required on the conduit used with the Burelle device.

Finally, Examiner states that there is at least one hole “cut” in the top of the “end piece” of Burelle for receiving a pipe. There is no hole cut in the “top” of the end piece of Burelle. There is no “top” of Burelle. The Burelle device is not a cap that has a solid top through which a hole could be cut. The Burelle device is a two-piece ring structure fitted around two conduits to be connected. There is no solid material covering the opening of the conduit or forming a cap in Burelle.

Therefore, Applicant asserts that all of the elements of Applicant’s invention are not disclosed in Burelle.

Burelle is not a cap, but rather a two-part slim ring, and has no solid top portion, as claimed in Applicant’s amended claim 1, in which a hole could even be cut. Thus, the element of a solid end piece of Applicant’s invention, that covers the opening of the conduit, is not disclosed by Burelle.

In addition, while Burelle does have “projections” that are angled they have a groove behind them and thus are shaped sort of like fish hooks. They also must engage with a

pecially formed flange required on the conduit. Applicant's invention requires no modification to any conduit, and Applicant's tabs do not require grooves cut behind them. Applicant's tabs are solid and have flat surfaces. Thus the tabs of Applicant's invention are not the same as the projections of Burelle and are not disclosed by Burelle.

Also as noted above, the element that Examiner calls a "skirt", element 10 of Burelle, is not a skirt at all, but is rather a groove. Applicant's invention has no such groove cut behind the tabs. The tabs of Applicant's invention are solid with a flat face, they have no groove behind them. Therefore this element 10, which is not a skirt but rather a groove, is not present in Applicant's invention.

Finally, and in connection specifically with claim 7 and the statement Examiner made saying that Burelle has at least one hole cut in the "top" of the end piece, as pointed out above, there is no solid top in Burelle to cut a hole through. Burelle has no "end piece" that is anything like element 12 (end piece) of Applicant's invention. As can be seen in Figure 1 of the present Application, end piece 12 is a solid top piece with skirt 14 extending therefrom. End piece 12 completely covers the opening at the end of the conduit. There is no such top piece present in Burelle. Burelle is simply a two-piece ring used to change and connect larger and smaller diameter conduit. A ring is not the same element as a solid top with a hole optionally cut therethrough. Thus, there is no solid top or end piece disclosed in Burelle.

Because all of the elements of Applicant's invention are not disclosed in Burelle, Applicant's invention is not anticipated by Burelle. In addition, claim 7 is a dependent claim, dependent on an allowable base claim, and is thus also allowable. Therefore, Applicant respectfully requests that Examiner withdraw the rejections to the claims as amended. No new matter has been added.

Unke

Claims 1, 6, 7, 11-14, 16, and 19 stand rejected under 35 USC § 102(b) as being anticipated by US Patent No. 1,853,946 to Unke.

Examiner states that the patent to Unke discloses the recited end cap for a conduit comprising an end piece 14 having a rounded convex surface, a circumferential skirt 12 attached around the end piece and formed of the same material as the end piece, specifically metal, where the circumferential skirt comprises a plurality of connection tabs 17 spaced circumferentially around the skirt, wherein the tabs have angled faces and there is at least one hole 19 cut in the top of the end piece which is considered capable of receiving another pipe, flange 15 provides the end piece with a strengthened surface integral thereto, the skirt has integral structure shown as the ribs outside of the face 12 in Figure 6 which inherently would give the skirt added strength in that area of the tabs, and the strengthening structures are formed of the same material as the rest of the cap structure.

Applicant traverses these rejections and respectfully disagrees with Examiner's analysis of Unke. First, the device of Unke is a thread protector device for threaded pipe to be threadedly connected to other pipe. It is not designed at all to cap a conduit against flow. It is a device to protect the ends of pipes during handling and treating of pipes during shipment and processing, for example pickling or enameling a pipe, of pipe. It is specifically designed to only protect the threads at the end of a pipe, and specifically to allow liquid to drain out around the threads and the protective device during pickling or other dipping treatment.

In addition, the Unke device has a *concave* surface with respect to the conduit. As shown in Figure 1 of Unke, the protective device curves downward in towards the interior of the conduit.

Also, the lugs or projections 17 of Unke, which Examiner has labeled connection tabs, are arranged in basically a threaded pattern, not strictly circumferentially. See Column 2, lines 13-21 and lines 33-43 wherein the lugs are described as being in a relatively helical arrangement conforming to the helix of the threads of the pipe, and as engaging and following the threads on the end of the pipe. It is also described that the cooperation of the lugs serves to prevent the protector from being removed from the pipe by straight axial movement. Thus, the lugs of Unke are not only circumferentially arranged, but rather are multiple rows and helically arranged to thread along the threads of a threaded pipe.

The “at least one hole” examiner refers to are *drainage apertures* 19 of Unke which are provided to allow drainage of liquid materials to and from the threads of the threaded pipe. See Column 2, lines 44-59 wherein it is described that the spaces between the rows of lugs form passages 18 that permit liquid to flow to and from the threads of the pipe, and that to permit free and rapid drainage of liquid materials the circumferentially spaced apertures 19 are provided. The apertures are in axial alignment with the passages. Therefore, as can be seen in Figure 5, the apertures are along the curved portion of the protector that arches over the rim of the pipe. In addition, the apertures are triangularly shaped, and thus, because of their location and shape, they could not effectively be used to receive pipe therein.

Therefore, all of the elements of Applicant’s invention are not disclosed by Unke. As noted, the device of Unke is not an end “cap”. It can not cap or stop flow of liquid from a conduit. In fact it is specifically designed to allow liquid to flow out around the protector. In addition, the Unke device can not attach to corrugated or smooth conduit, but only to threaded conduit. Also, the Unke device curves toward the interior of the conduit, whereas the end cap of the present invention curves *away* from the interior of the conduit, as claimed in claim 19 and shown in Figures 1, 6, and 7. In addition, while the lugs of Unke have angled faces where they interact with the threads, the connection tabs of the present invention have flat faces where they intersect with the corrugations of conduit. See Figures 2b and 7 of the present invention. Furthermore, the apertures 19 of Unke are simply not the optional hole cut into the solid cap of the present invention. They are multiple small drainage holes made around the circumference of the protector of Unke. They are triangularly shaped and angled into a bend in the protector. They can not receive and hold pipe. Thus they are in no way the same element as the optional hole 36 of the present invention, as shown in Figure 3.

Thus, Unke does not disclose a cap for a conduit, it merely discloses a thread protector. Unke does not disclose a convexly curved cap that curves away from the interior of the conduit. In fact, Unke is specifically designed to curve in towards the interior of the conduit. Also, Unke does not disclose connection tabs circumferentially around the skirt. The Unke device has multiple rows of helically arranged lugs, which are not the “swinging” connection tabs of the present invention. In addition Unke does not disclose at least one hole

cut in the top of the cap for receiving conduit. The triangularly shaped drainage apertures are simply not the same element as a hole for receiving conduit, and could not effectively receive and stably hold conduit. Unke is not meant to hold conduit in any way. It simply protects the threads of a threaded conduit. Also, the strengthening device of Unke is simply an additional flange 15 around the protector, it does not run over or across the top surface but rather around the top. Whereas Applicant's additional strengthening is formed into the top or end piece, not simply located around the rim of the device.

Therefore, although the Unke device is all made of the same material and contains some strengthening devices, it has been pointed out above that all of the elements of Applicant's invention are not disclosed by Unke, thus even though there may be some similarities, Applicant's invention is not anticipated by Unke.

Because all of the elements of Applicant's invention are not disclosed in Unke, Applicant's invention is not anticipated by Unke. In addition, claims 6, 7, 11-14, 16 and 19 are dependent claims, dependent on an allowable base claim, they are thus also allowable. Therefore, Applicant respectfully requests that Examiner withdraw the rejections to the claims as amended. No new matter has been added.

35 USC § 103(a)

Burelle/Hodge

Claims 2-6 stand rejected under 35 USC § 103(a) as being unpatentable over US Patent No. 3,583,710 to Burelle in view of US Patent No. 3,840,152 to Hodge.

Examiner states that the patent to Burelle discloses all of the recited structure with the exception of forming the tabs as legs hinged to the skirt in a plurality of openings, and specific angles of the angled part of the legs. Examiner considers it an obvious choice of mechanical expedients to vary the angle of the wedge leg to meet the needs of the user as such would only require routine skill in the art and routine experimentation to arrive at optimum values, and obvious to modify the wedge shaped legs in Burelle in such a manner.

Applicant respectfully traverses the rejections. As pointed out above, Burelle does not disclose the connection tabs of Applicant's invention. The projections of Burelle, with their recessed grooves behind them are not the connection tabs of the present invention. Thus, whether angles might be something that would only require routine experimentation is not relevant because no matter how angles were adjusted on the projections of Burelle, Applicant's invention would not result.

With respect to Hodge, Examiner states that the patent to Hodge discloses the recited end cap for a conduit comprising a skirt portion 17 provided with a plurality of angled tabs 18 which can be seen to be hingedly attached to the skirt and formed inside of cut out portion which are considered by Examiner as openings. Examiner considers that it would have been obvious to one skilled in the art to modify the tabs in Burelle by forming them with hinged connections to the skirt and be provided in openings to allow for greater flexibility and allow for easier attachment as suggested by Hodge.

Applicant respectfully disagrees with Examiner's analysis. Hodge does not disclose the recited end cap for a conduit. Hodge is not even a cover, cap or connector of any sort for a conduit. It is a container lid, for example for paint buckets. In addition, the "skirt portion" 17 of Hodge is not even attached to the lid portion. It is attached to the body of the bucket or container. See element 17 of Figures, 2, 3, and 4. Thus, the Hodge does not disclose a skirt of any sort on the lid. Element 17 is defined as a peripheral band attached to the container, not the lid. In addition, tabs 18 are located on the peripheral band of the container. There are no such hinged tabs of any sort on the cover or lid portion of the Hodge device. Therefore, Hodge does not disclose the skirt and hinged tabs of the present invention.

In addition, even if the ring 3 or the seal 4 of Burelle were provided with hinged tabs, Applicant's invention could not result. Burelle is a two piece ring structure for connecting conduit of different diameter, it is not a cap for closing off conduit. Also, looking at the conduit, Burelle requires a flange on the conduit, and thus could not have the peripheral band and tabs located on the conduit. In addition, Hodge teaches away from having hinged tabs on its cover portion, by requiring the peripheral band and tabs on the container portion of the

invention. In fact, the lid of Hodge actually has *outwardly* facing projections to engage with the L-shaped band located on the container. Thus, there is no teaching or suggestion in either Burelle or Hodge to combine a peripheral band and hinged tabs located on the body of the container with a two-piece ring joining structure of Burelle. In fact, the references teach away from such combination in that Hodge and Burelle both require special flanges or bands to be put on the container and conduit, which Applicant specifically does not require. Applicant makes and needs no modification to the conduit, whereas both Burelle and Hodge must have additions made to the conduit or container in order to attach the ring or lid. Applicant's invention is much simpler and easier to make and use than either Burelle or Hodge.

Finally, claims 2-6 are dependent claims, dependent on allowable amended claim 1 and are thus allowable also because claim 1 is not anticipated by Burelle and is thus allowable. Therefore, because there is no teaching or suggestion in either Burelle or Hodge to combine the peripheral band of Hodge with the ring connector of Burelle, and because even if such combination were made, Applicant's invention would not result, Applicant respectfully requests that Examiner withdraw the rejections.

Burelle/Flimon

Claims 8, 9, and 11-15 stand rejected under 35 USC § 103(a) as being unpatentable over US Patent No. 3,583,710 to Burelle in view of US Patent No. 3,911,960 to Flimon.

Examiner states that the patent to Burelle discloses all of the recited structure with the exception of forming the ring of the end cap with a plurality of fingers hingedly attached to the ring and protruding toward the center of the opening and forming a strengthened end surface. Examiner further states that the patent to Flimon discloses the recited end cap comprising a skirt 2 extending from an end portion 10 which is formed with a thicker portion what would inherently provide more strength to the end surface and a plurality of fingers 12 that hingedly attach to the ring shaped end piece 3 to allow for the receiving of articles into the pipe. Examiner then asserts that it would have been obvious to one skilled in the art to modify the end cap of Burelle by providing a thicker portion to strengthen the end cap, and to provide a

ring-shaped structure provided with fingers that hingedly attach to the ring to protect the inside of the tube as things are inserted into the end of the tube as suggested by Flimon.

Applicant respectfully traverses the rejections. With respect to Burelle, as pointed out above, Burelle does not disclose all of the recited structure of Applicant's invention, regardless of the presence or absence of a plurality of hingedly attached fingers. In addition, Flimon does not disclose an end cap for closing a conduit. Flimon simply discloses an end protector to protect conduit against damage during handling. In addition, Flimon is also ring shaped, and has no cover over the entire opening of the conduit. There is nothing to cut a hole in to receive and hold conduit. Furthermore, the rubber fingers of Flimon are not meant or structured in any way to receive or hold a conduit. They are present only to allow the rubber protecting ring to tear evenly if a hook picking up the pipe slips or tears the protecting ring. There is no teaching whatsoever in Flimon that their device would or could ever be used to receive or hold conduit. It is simply essentially a rubber ring put around the end of pipe to protect the pipe when hooks pick up the pipe.

In addition there is no teaching in Burelle that would lead one to add flexible fingers to either the ring or seal devices of Burelle. The conduit connecting ring is attached securely around the larger of two conduits to be joined, while the seal presses against the smaller of the two conduits with a frustoconical skirt. There is no reason or place that flexible rubber fingers would or could be used in the connection device of Burelle. Such fingers, used in Flimon solely for evenness of tearing by lifting hooks would never be required or even considered for use in a conduit joining device such as Burelle because the conduit of Burelle is never picked up using the connecting joint and thus would require no tear-protecting device.

Because the Flimon device could not be used to receive or hold conduit, nor is there any teaching or suggestion in Flimon to ever do so, and because there is no teaching, suggestion or reason to ever include flexible fingers on the seal or ring portions of the Burelle device, there is no way one in the art would be lead to combine Burelle and Flimon. And in addition, Applicant's invention could not possibly result even if one attempted to add flexible fingers to Burelle. Burelle is not a cap to cover the entire end of a conduit, but is simply a conduit joining

ring-shaped device and adding flexible fingers would not result in Applicant's invention. Finally, claims 8, 9, and 11-15 depend from allowable claim 1 and are thus also allowable. Therefore, Applicant respectfully requests that Examiner withdraw the rejections.

Allowable Claims

Applicant appreciates Examiner's indication of allowable subject matter, but has not amended the potentially allowable claims at this time. Based on claim 1 as amended, and the explanation and argument above, Applicant believes the independent claim 1 to be in condition for allowance, thus not requiring the amendment of the indicated allowable claims at this time.

Conclusion

Applicant has amended the claims and has clearly pointed out how Burelle and Unke do not disclose all of the elements of the claimed invention. In addition, Applicant has clearly explained how Burelle, which is a ring-shaped conduit connector, contains no teaching or suggestion to add hinged tabs shown in Hodge, and how there is no teaching or suggestion in Hodge, which is a container and lid, to use the lid for a conduit or provide a conduit with a peripheral band and tabs shown on the container in Hodge. In addition, Applicant has explained how Burelle could not be combined with Flimon, since there is no teaching or suggestion or ability to ever use Flimon to connect conduit, and no teaching, suggestion or reason to add flexible fingers to a conduit connector such as Burelle.

Therefore, based on the claims as amended, and the arguments and explanations presented above, Applicant respectfully requests reconsideration of the Application, and withdrawal of the rejections such that the application is now in condition for allowance.

Applicant wished to have a patent issue and welcomes any discussion with Examiner to work towards additional allowable claims. Applicant's attorney, Kristin Kohler, can be reached at 1-231-275-3799 if Examiner wishes to discuss the references or provide and discuss any suggestions for additional allowable claim language. Therefore, after Examiner reviews

the amendments and explanation Applicant would appreciate the opportunity to discuss the case with Examiner to work towards issuance. Finally, any fees due in connection with this response are included herewith.

Respectfully submitted,



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